



Appl. No: 10/811,628  
Amdt. Dated June 17, 2005  
Reply to Office action of December 29, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1(Currently Amended). A compositionally uniform nanomaterial comprising chalcogenide with aspect ratio greater than  $4 \times 2$  and less than 1,000,000.

2(Original). The nanomaterial of claim 1 wherein the nanomaterial is non-stoichiometric.

3(Original). The nanomaterial of claim 1 wherein the nanomaterial is stoichiometric.

4(Currently Amended). The A metallic nanomaterial with aspect ratio greater than  $4 \times 2$  and less than 1,000,000 ~~of claim 1 wherein the nanomaterial comprises an element selected from the group: silver, gold, platinum, palladium, ruthenium, copper, tantalum, niobium, indium and rare~~  
5 earth.

5(Original). A product comprising nanomaterial of claim 1.

6(Currently Amended). A The metallic nanomaterial of claim 4 wherein the nanomaterial comprises an element selected from the group: silver, gold, platinum, palladium, ruthenium, copper, tantalum, niobium, indium and rare earth with aspect ratio greater than  $1 \times 2$  and less than 1,000,000.

7(Currently Amended). A product comprising nanomaterial of claim ~~4~~ 6.

8(Currently Amended). An inorganic nanomaterial comprising nitrogen with aspect ratio greater than  $4 \times 2$  and less than 1,000,000.

9(Original). A product comprising nanomaterial of claim 8.

10(Currently Amended). An non-stoichiometric nanomaterial comprising oxygen wherein the nanomaterial has an aspect ratio greater than  $4 \pm 2$  and less than 1,000,000.

11(Original). A product comprising nanomaterial of claim 10.

12(Currently Amended). An inorganic nanomaterial comprising phosphorus with aspect ratio greater than  $4 \pm 2$  and less than 1,000,000.

13(Original). A product comprising nanomaterial of claim 12.

14(Currently Amended). A polymeric nanomaterial with aspect ratio greater than  $4 \pm 2$  and less than 1,000,000.

15(Original). A product comprising nanomaterial of claim 14.

16(Original). A non-oxide nanomaterial with plate like morphology.

17(Original). The non-oxide nanomaterial of claim 16 wherein the nanomaterial is non-stoichiometric.

18(Original). A product comprising the nanomaterial of claim 16.

19(Original). A nanomaterial with faceted morphology.

20(Original). A product comprising the nanomaterial of claim 19.

21(New). The nanomaterial of claim 1 wherein the chalcogenide comprises sulfur.

22(New). The nanomaterial of claim 1 wherein the chalcogenide comprises selenium.

23(New). The nanomaterial of claim 1 wherein the chalcogenide comprises tellurium.

24(New). The nanomaterial of claim 4 wherein the nanomaterial comprises two or more elements.

25(New). The nanomaterial of claim 8 wherein the nanomaterial comprises three or more elements.

26(New). The nanomaterial of claim 10 wherein the nanomaterial comprises three or more elements.

27(New). The nanomaterial of claim 12 wherein the nanomaterial comprises three or more elements.

28(New). The nanomaterial of claim 1 wherein the surface of the nanomaterial has been reacted with a precursor.

29(New). The nanomaterial of claim 4 wherein the surface of the nanomaterial has been reacted with a precursor.

30(New). The nanomaterial of claim 8 wherein the surface of the nanomaterial has been reacted with a precursor.

31(New). The nanomaterial of claim 10 wherein the surface of the nanomaterial has been reacted with a precursor.

32(New). The nanomaterial of claim 12 wherein the surface of the nanomaterial has been reacted with a precursor.